

Amendments to the Specification

On page 1, please add the following paragraph, after the paragraph beginning "This application is a continuation-in-part...":

INCORPORATION OF SEQUENCE LISTING

A paper copy of the Sequence Listing and a computer readable form of the sequence listing on diskette, containing the file named 1651802.APP, which is 136,828 bytes in size (measured in MS-DOS), and which was created on August 5, 2003, is herein incorporated by reference in its entirety.

Please delete the paragraph on page 6, lines 3-6, and replace it with the following paragraph:

Figure 1. The nucleic acid sequence (**SEQ ID NO: 1**) and translated amino acid sequence (**SEQ ID NO: 2**) of a jojoba fatty acyl reductase, as determined from the cDNA sequence, is provided in Figure 1.

Please delete the paragraph on page 6, lines 7-10, and replace it with the following paragraph:

Figure 2. Preliminary nucleic acid sequence (**SEQ ID NO: 3**) and translated amino acid sequence (**SEQ ID NO: 4**) of a jojoba plant cytoplasmic protein involved in fatty acyl-CoA metabolism cDNA clone are provided.

Please delete the paragraph on page 6, lines 11-13, and replace it with the following paragraph:

Figure 3. Nucleic acid (SEQ ID NO: 5) and translated amino acid (SEQ ID NO: 6) sequences of second class of the jojoba clones, as represented by the sequence of pCGN7614, is provided.

Please delete the paragraph on page 6, lines 14-15, and replace it with the following paragraph:

Figure 4. Nucleic acid sequence (SEQ ID NO: 7) of an oleosin expression cassette is provided.

Please delete the paragraph on page 6, lines 16-18, and replace it with the following paragraph:

Figure 5. Nucleic acid sequence (SEQ ID NOS 8 and 9) of a *Brassica* condensing enzyme clone, CE15, is provided from a LEAR variety (212).

Please delete the paragraph on page 6, lines 19-20, and replace it with the following paragraph:

Figure 6. Nucleic acid sequence (SEQ ID NOS 10 and 11) of a CE20 from the 212 *Brassica* variety.

Please delete the paragraph on page 6, lines 21-22, and replace it with the following paragraph:

Figure 7. Nucleic acid sequence (SEQ ID NOS 12 and 13) of a *Brassica* Reston variety (HEAR) clone, of the CE20 class, is provided.

Please delete the paragraph on page 6, lines 23-24, and replace it with the following paragraph:

Figure 8. Nucleic acid sequence (SEQ ID NOS 14 and 15) of an *Arabidopsis* condensing enzyme clone, CE15.

Please delete the paragraph on page 6, lines 25-26, and replace it with the following paragraph:

Figure 9. Nucleic acid sequence (SEQ ID NOS 16 and 17) of an *Arabidopsis* condensing enzyme clone, CE17.

Please delete the paragraph on page 6, lines 27-28, and replace it with the following paragraph:

Figure 10. Nucleic acid sequence (SEQ ID NOS 18 and 19) of an *Arabidopsis* condensing enzyme clone, CE19.

Please delete the paragraph on page 6, lines 29-30, and replace it with the following paragraph:

Figure 11. Partial nucleic acid sequence (SEQ ID NOS 20 and 21) of *Lunaria* condensing enzyme clone designated LUN CE8.

Please delete the paragraph on page 6, lines 31-33, and replace it with the following paragraph:

Figure 12. Nucleic acid sequence (SEQ ID NOS 22 and 23) of a *Lunaria* condensing enzyme clone, Lunaria 1, obtained by probing with LUN CE8.

Please delete the paragraph on page 6, lines 34-35, and replace it with the following paragraph:

Figure 13. Nucleic acid sequence (SEQ ID NOS 24 and 25) of a second *Lunaria* condensing enzyme clone obtained from LUN CE8, Lunaria 5.

Please delete the paragraph on page 6, lines 36-37, and replace it with the following paragraph:

Figure 14. Nucleic acid sequence (SEQ ID NOS 26 and 27) of third *Lunaria* condensing enzyme clone from LUN CE8, Lunaria 27.

Please delete the paragraph on page 6, lines 38-39, and replace it with the following paragraph:

Figure 15. Nucleic acid sequence (SEQ ID NOS 28 and 29) to a *Nasturtium* condensing enzyme clone obtained by PCR.

Please delete Table 2 on page 48, lines 1-13, and replace it with the following Table:

Table 2

Amino Acid Sequence of Jojoba 57 kDa protein Tryptic Peptides

SQ1114	ETYVPESVTKK (<u>SEQ ID NO: 30</u>)
SQ1084	VPXEPSIAAX (<u>SEQ ID NO: 31</u>)
SQ1083	ETYVPEEvtk (<u>SEQ ID NO: 32</u>)
SQ1120	DLMAVAGEAlk (<u>SEQ ID NO: 33</u>)
SQ1125	MTNVKPYIPDF (<u>SEQ ID NO: 34</u>)
SQ1129	FLPXXVAiTGe (<u>SEQ ID NO: 35</u>)
SQ1131	FGNTSSXXLyxelayak (<u>SEQ ID NO: 36</u>)
SQ1137	AEAEEVMYGAIDEVLEK (<u>SEQ ID NO: 37</u>)

Please delete the paragraph on page 49, line 26, to page 50, line 5, and replace it with the following paragraph:

Size exclusion chromatography on Superose 12 (Pharmacia; Piscataway, NJ) medium is used to obtain an estimate of the size of the native enzyme and to aid in identifying candidate polypeptides. Comparison to molecular mass standards chromatographed under identical conditions yields an estimate of ~46kD for the native wax synthase activity. Three polypeptides bands, with apparent molecular masses of 45kD, 58kD and 64kD, were identified which tracked with wax synthase activity. N-terminal sequence of the 45kD polypeptide, the strongest candidate for wax synthase, is determined as XDIAIIGSGsAGLAQaxilkdag (**SEQ ID NO: 38**), where the one letter code for amino acids is used, "X" represents a position where the amino acid could not be identified, and amino acids represented by lower case letters represent residues which were identified with a lesser degree of confidence. In addition, sequence of a tryptic peptide of the *Acinetobacter* wax synthase protein is determined as QQFTVWXNASEPS (**SEQ ID NO: 39**).

Please delete the paragraph on page 82, lines 4-16, and replace it with the following paragraph:

In order to isolate clones that encode related enzymes, the protein sequences of the jojoba β -ketoacyl-CoA synthase and the *Arabidopsis* locus 398293 were compared to find conserved domains. Several peptide sequences were identical in the jojoba β -ketoacyl-CoA synthase and the translation of the *Arabidopsis* homologue 398293. Two peptides: 1) NITTLG (**SEQ ID NO: 40**) (amino acids 389 to 394 of the jojoba β -ketoacyl-CoA synthase) and 2) SNCKFG (**SEQ ID NO:41**) (amino acids 525 to 532 of the jojoba β -ketoacyl-CoA synthase) were also present in the translation of 398293. Degenerate oligonucleotide primers AAYATHACNACNYTNGG (**SEQ ID NO: 42**) and SWRTTRCAYTTRAANCC (**SEQ ID NO: 43**) encode the sense and antisense strands of the respective peptides.

Please delete the paragraph on page 83, lines 18-32, and replace it with the following paragraph:

CE20 primers were then chosen to get full-length CE20 sequences. Consequently, CAUCAUCAUCAUGTCGACAAAATGACGTCCATTAACGTAAAG (SEQ ID NO: 44) and CUACUACUACUAGTCGACGGATCCTATTGGAAGCTTGACATTGTTAG (SEQ ID NO: 45) were utilized. These are homologous to the 5' and 3' ends of the protein coding region of CE20, respectively. These primers were used to PCR the entire coding region of the CE20 cDNA (by RTPCR) from 212/86 (Figure 6) and Reston (Figure 7). Sequences were additionally designed for the ends of the primers which facilitated cloning of the PCR products in the CloneAmp vector (BRL), and restriction enzyme sites were introduced to allow introduction of the CE20 clones into the napin expression cassette for both sense and antisense expression of CE20 in transgenic *Brassica* plants.

Please delete Table 8 on page 85, lines 1-35, and replace it with the following Table:

Table 8

The CE15, and CE20 *Brassica* cDNA sequences shown in Figures 8, 9 and 10 and the condensing enzyme encoding sequence from jojoba (Figure 3) were used in determining the following primers from conserved amino acids.

SENSE PRIMER TO PEPTIDE KL(L/G)YHY (SEQ ID NO: 46)

5381-CAUCAUCAUCAUGAATTCAAGCTTAARYTNBKNTAYCAYTA
(SEQ ID NO: 47)

SENSE PRIMER TO PEPTIDE NLGGMGC (SEQ ID NO: 48)

5384-CAUCAUCAUCAUGAATTCAAGCTTAAYTNGGNATGGG
(SEQ ID NO: 49)

ANTISENSESENSE PRIMER TO PEPTIDE NLGGMGC **(SEQ ID NO: 48)**

5382-CUACUACUACUAGGATCCGTCGACCCATNCCNCCNARRTT **(SEQ ID NO: 50)**

ANTISENSESENSE PRIMER TO PEPTIDE GFKCNS **(SEQ ID NO: 51)**

5385-CUACUACUACUAGGATCCGTCGACSWRTTRCAYTTRAANCC
(SEQ ID NO: 52)

ANTISENSESENSE PRIMER TO PEPTIDE GFKCNS **(SEQ ID NO: 51)**

4872-CUACUACUACUASWRTTRCAYTTRAANCC **(SEQ ID NO: 53)**

Please delete the paragraph on page 86, lines 1-14, and replace it with the following paragraph:

These primers from Table 8 were variously used to PCR (RTPCR) amplify fragments from RNA isolated from developing seeds of *Lunaria annua*, *Tropaeolum majus* (*Nasturtium*), and green siliques of *Arabidopsis thaliana*. The primers most successfully utilized were 5381-

CAUCAUCAUCAUGAATTCAAGCTTAARYTNKNTAYCAYTA **(SEQ ID NO: 47)**
(a sense primer to peptide KL(L/G)YHY) **(SEQ ID NO: 46)** and
CUACUACUACUAGGATCCGTCGACCCATNCCNCCNARRTT **(SEQ ID NO: 50)**
(an antisense primer to peptide NLGGMGC) **(SEQ ID NO: 48)**. These primers were used to produce three clones encoding a portion of the elongase condensing enzyme from

Arabidopsis, designated ARAB CE15, ARAB CE17 and ARAB CE19 (Figures 8, 9 and 10, respectively).